



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,659	02/27/2004	Pieter G. Wybro	144599/MOD012	9153
23444	7590	11/07/2005	EXAMINER	
ANDREWS & KURTH, L.L.P. 600 TRAVIS, SUITE 4200 HOUSTON, TX 77002			SPAHN, GAY	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/789,659

Applicant(s)

WYBRO ET AL.

Examiner

Gay Ann Spahn

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2005 and 16 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 16, 19 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17, 18, 20-22 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 5 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of the invention of Group I (claims 1-11 and 12-27, drawn to a method of mooring a floating hydrocarbon vessel and a method of installing an offshore floating vessel, respectively, classified in class 114, subclass 294) in the reply filed on 15 July 2005 is acknowledged.

Applicant's election without traverse of the Group II species of winch tensioning device, the Group III species of chain pull-down tension member, and Group IV species of local control tensioning device in the reply filed on 15 July 2005 is acknowledged.

Applicant's election with traverse of the Group I species of Figs. 1-7 of tension leg platform in the reply filed on 15 July 2005 is acknowledged and Applicant's arguments are persuasive. Therefore, the election of species requirement with respect to the Group I species of tension leg platforms is withdrawn.

Claims 16, 19, and 23 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3673

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-4, 6-15, 17, 18, 20-22, 24, and 25 are rejected under 35**

**U.S.C. 102(b) as being anticipated by Borseth (U.S. Patent No. 6,106,198).**

Regarding claims 1, 2, 7, 9-18, and 24, Borseth discloses a method for installation of tension-leg platforms or TLP (9) and flexible tendons (19). The tension leg platform or TLP does not comprise any temporary stability or buoyancy modules coupled thereto. Borseth discloses that the method is used to install a plurality of anchors between the tension leg platform or TLP and sea floor (see column 5, lines 12-18). Borseth discloses an opening within monopod (10) and grooves (71) within deflectors (38) that function as connection sleeves to receive upper end of tendons (19), the upper ends being in the form of chains (37) (see Fig. 9A). Borseth further discloses winches (42P) that function as tensioning devices and wires (41) that function as pull down tension members for the tendons (19) (see Fig. 9A). Borseth further discloses the steps of anchoring the tendons to the sea floor (see Fig. 7), coupling the wires (41) to upper ends of the tendons (19), and tensioning the wires using the winches to anchor and keep the tension leg platform or TLP submerged (see columns 5 and 6 for the method steps).

Regarding claim 3, Borseth discloses the winches are capable of inducing tension in the pull-down tension members to submerge the vessel without ballasting (see Fig. 9A).

Regarding claim 4, Borseth discloses that the vessel may comprise ballast (see column 7, lines 5-8).

Regarding claim 6, Borseth discloses the aforementioned features in addition to a flowchart in Fig. 4.

Regarding claim 8, Borseth discloses that float (15) may be moved to compensate for resonance that would otherwise be created. He also discloses that the float generates a stabilizing moment in combination with tension leg platform or TLP teeth (see column 7, lines 33-45).

Regarding claims 20-22, Borseth discloses deflectors (38) that route the tension members to provide a generally vertical pull on the tendon or mooring member.

Regarding claim 25, Borseth's platform (12) functions as an integrated deck.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borseth (U.S. Patent No. 6,106,198), as applied to claim 14 above, and further in view of Vincken et al. (U.S. Patent No. 3,681,928).**

Borseth discloses the invention as described above.

However, Borseth fails to disclose measuring devices.

Vincken et al. disclose a method and apparatus for carrying out underwater well operations using sensing devices (28) and winches for cable/tendon engaging means.

Art Unit: 3673

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Borseth to incorporate the sensing devices, such as instrumented pins, as taught by Vincken et al. in order to be able to measure the tension in the pull-down tension member to prevent the pull-down tension members from being overstressed.

### ***Allowable Subject Matter***

Claims 5 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments filed 16 February 2005 have been fully considered but they are not persuasive.

Applicant argues that all of claims 1-4, 6-15, 17, 18, 20-22, 24, 25, and 27 contain the limitation that the vessel has no temporary stability or buoyancy modules coupled thereto and therefore, these claims are not anticipated by Borseth because Borseth teaches coupling a temporary stability module to the vessel.

The examiner disagrees and directs the Applicants' attention to col. 6, line 61 through col. 7, line 15 of Borseth wherein it states as follows:

However, as soon as the tendons 27 are securely in place, the water displacement at the surface is no longer needed. In fact, once the tension-leg platform 9 is secured to the sea floor, increased surface area of the tension leg platform 9 at the surface of the water 11 is detrimental.

Art Unit: 3673

As the waves act on the large surface area of the float 15 (see FIG. 1a(1) and 1a(2)), they induce resonance in the tension-leg platform 9 until the amplitude of the resonance is such that the tendons 27 begin to break. Therefore, as shown in FIG. 10b, once the tendon leg platform 9 has secured to the sea floor, the float 15 is moved by a mover so that it is lowered until it abuts against the pontoons 14. The mover of the float 15 may comprise ballast, a pulley cable system, a hydraulic system, or any other system known. **The float 15 is then attached to the pontoons 14 and to the main buoyancy structure 13 and the ballast is removed.**

Thus, the float 15 provides buoyancy to the tension leg platform 9 below the wave zone of the sea. In this configuration, the tension-leg platform 9 has a smaller cross section upon which the waves at the surface act. Additionally, with the float secured to the tension leg platform 9, the added buoyancy allows the tension leg platform to support several risers (not shown) which will be brought from the sea floor.

In this regard, the float 15 comprises a reducer of the size of the TLP in the wave zone because once the float 15 is submerged to where it no longer pierces the surface of the sea, it does not displace seawater in the wave zone. The reducer of the size of the TLP in the wave zone may also comprise a device which removes or reconfigures TLP structural elements so that less water is displaced in the wave zone. For example, a crane may be used to remove members which support the TLP during transportation and assembly, but which are not required when the TLP is secured to the sea floor. (Emphasis Added).

This clearly discloses that Borseth's tension leg platform or TLP does not have a temporary stability or buoyancy modules coupled thereto and therefore, the first Office Action's rejections based upon Borseth have been maintained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 3673

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gay Ann Spahn whose telephone number is (571)-272-7731. The examiner can normally be reached on Monday through Thursday, 8:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on (571)-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should



Application/Control Number: 10/789,659

Page 8

Art Unit: 3673

you have questions on access to the Private PAIR system, contact the Electronic  
Business Center (EBC) at 866-217-9197 (toll-free).

<sup>GAS</sup>  
Gay Ann Spahn, Patent Examiner  
October 31, 2005



**MICHAEL SAFAVI**  
**PRIMARY EXAMINER**  
**ART UNIT 354**